frontal bone are oftentimes accompanied with effusion of blood in the orbit. Bleeding from the ear is of not infrequent occurrence in severe injuries to the head, indicating fracture through the petrous portion of the temporal bone. But of the signs indicative of fracture of the petrous bone, one of the surest is the copious discharge of a watery fluid, which may or may not be preceded by bleeding. The author believes the fluid to come from the sub-arachnoid space. That such is sometimes the case has been established by M. Robert, in a valuable paper in the "Mémoires de la Société de Chirurgie de Paris," vol. i. The discharge occurred in old as well as in young subjects. M. Chapaignac has endeavoured to prove that this fluid owes its origin to the filtering of the colourless part of the blood, and other surgeons have held that it comes from the cavity of the arachnoid. Such cases, however, if they do occur, must be rare. The author does not believe that the source of the watery fluid in all cases is the sub-arachnoid space, but in most cases, and especially those where it is clear and abundant from the commencement, and he refers to Mr. Hilton's Lectures in proof of this statement. Extensive separation of the sutures coexisted with the fractures in 14 cases: separation of the coronal suture occurred in seven cases, and of the lambdoidal in three cases; of the sagittal suture in four cases. In one case, and in one only, there was separation of a suture without a fracture; it occurred in the posterior part of the squamo-parietal suture.—*Lancet*, June 11, 1853.

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55. *Entire Resection of both Superior Maxillary Bones.*—The complete extirpation of both superior maxillary bones has been twice performed by HEYFELDER.

CASE I. A. Schmidt, aged 25, came to the Clinique, June 13, 1844, suffering from a tumour of the face, which, from his account, had commenced a year ago, in the posterior part of the palate, and had gradually involved both superior maxillary bones. The nose was pushed upwards, and flattened; the palatine arch was depressed towards the tongue; the face was affected with œdematous swelling; both respiration and deglutition were impaired, speech was embarrassed, and the sleep broken. The teeth, though loosened, were sound; only two incisors were wanting. The tumour appeared everywhere hard, uneven, and insensible to the touch, and did not pass beyond the boundaries of the superior maxillary bones. The constitution was good; lancinating pains had been felt in the tumour only during the last few weeks.

Dr. Heyfelder concluded that the tumour was of an indolent malignant character, and that the only remedy consisted in the entire removal of both maxillary bones. The operation was performed, June 23, 1844. The patient being seated in a chair, the head resting against the chest of an assistant, two incisions were made from the external angles of the eyes to the labial commissures, and the included parts were reflected upwards to the internal angles of the eyes, and to the ossa nasi. The flap, thus formed, was raised towards the forehead, until the infra-orbital ridge was exposed. Then the chain-saw of Jeffray was passed through the spheno-maxillary fissures, and the malar bones were divided; the maxillæ were next separated from the ossa nasi; the vomer and the thinner bones were cut with strong scissors; after which a chisel, applied with moderate force to the superior part of the tumour, was sufficient to effect its separation. The accessions of syncope prolonged the operation, which, however, did not last longer than three-quarters of an hour. Very little blood was lost; torsion and compression sufficed to arrest the hemorrhage. Two hours afterwards, the edges of the wounds, from the angles of the eyes to the corners of the mouth, were united by twenty-six points of suture, and cold lotions were applied; there was no reaction nor swelling; the patient could swallow water and broth. Four days after the operation, it was remarked that the wounds had become almost entirely united by first intention. In six weeks, the patient was presented at the Physico-Medical Society of Erlangen, and on August 25, he was discharged.

The following was his condition: There was no deformity of the features; in the mouth, there was seen along the median line a fissure thirteen lines long and three lines broad; the extirpated parts had been replaced by the tissue of a cicatrix, firm and solid at the circumference, but somewhat softer near the fissure; the soft palate and the uvula were in their natural place; deglutition was free, and the tongue in a better state than formerly; the nose had resumed its usual form and direction; the face, which, before the operation, was monkey-like, once again possessed a human expression.

The microscopical examination of the tumour showed that it was of cancerous nature. Six months afterwards, the patient, in good health, went to work in the fields; but in the summer of 1845, Dr. Heyfelder was informed that another tumour was forming in the forehead.

Case II. Martin Lochner, aged 55, was affected in the upper lip, twelve years ago, with a cancerous growth, which was operated upon three years after its appearance. For two years there was no return; but, subsequently, a small tumour developed itself near the cicatrix, approached the nose, and excited violent pains. Soon a cancerous ulcer formed, which extended over the right half of the upper lip, the ala nasi, and the palate. The patient came into the hospital Jan. 21, 1850, in the following state: A horrible cancerous ulcer, commencing at the right commissure of the mouth, occupies the greater part of the upper lip, and has destroyed both the right ala and the septum nasi. All the parts were covered with painful, bleeding, fungous growths. The palatine arch was converted into an irregular, knobbed, cancerous mass; most of the teeth were lost; an offensive secretion was constantly flowing, and the patient was thinned and worn out.

The operation was performed January 24. Two incisions were made, exactly as in the preceding case. The chain-saw was used to separate the left os malæ, and Liston's bone forceps to divide the right. The remains of the septum nasi and the vomer were cut with strong scissors. A considerable quantity of the soft parts was likewise taken away. The bleeding was easily arrested, and the wounds were united as well as possible by suture. The patient was fed by a syringe. The left coronary artery bled three hours after the operation, but it was easily tied. The case went on well; and, on February 18, when the patient was presented at the Physico-Medical Society, the following was his condition: The greater part of the wounds were united; but a deficiency existed in the face, corresponding to the disease, at the superior part of which were seen the vertical portion of the ethmoid, and the two ethmo-turbinal bones. In the velum palati there was an opening, two centimètres wide. The destruction of the lip and of the nose produced on the right side a triangular opening, the base of which corresponded to the mouth, and the superior angle to the root of the nose.

He can take liquid food, but his speech is unintelligible; but, when the opening in the palate is closed by the sponge, he can make himself understood. Autoplastic operations were unadvisable, from the exhausted condition of the man.—*Med. Times and Gaz.* July 30, from *Rev. Medico-Chirurgicale de Paris,* 1853.

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56. *New Splint for Fractures.*—Mr. Winchester, on a recent occasion, brought before the Medico-Chirurgical Society a new form of apparatus for treating fractures of the extremities generally. He urged the necessity for restoring the limb to its original normal condition, in order to insure its entire usefulness, and the difficulty which is sometimes experienced by surgeons in attaining this end, which at times is so great as to be insufferable. The great difficulty is to secure perfect coaptation of the ends of the broken bone during the entire process of union, owing to the limb being bound up, and thus concealed from the eye of the surgeon. Mechanical contrivances should therefore be such as do not of themselves tend to injure the shape and strength of the limb; but, by maintaining the natural form, preserve it without fear of displacement during the process of repair. This, the author thinks, cannot be accomplished with the apparatus at present in use. Taking the form of the sound limb as the guide by which to adjust the broken one, the author has been led to the construction of a splint which he considers superior to any hitherto constructed. The principle sought to be attained is to procure a model of the sound limb by means of an adjustable splint, which may then be applied at once to the injured one.